HANDBOOK OF PHONOLOGICAL DATA FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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095 Ga

095 01 p-aspirated

095 02 b

095 03 t-aspirated[01]
[t-laminal-aspirated][01]
(free)

095 04 d[01]

095 05 k-aspirated

095 06 g

095 07 k/p[02]

095 08 g/b[02]

095 09 t/s-hacek-aspirated[03]

095 10 t/s-hacek-labialized[04]

095 11 d/z-hacek[03]

095 12 d/z-hacek-labialized[04]

095 13 f

095 14 v

095 15 s

095 16 z

095 17 s-hacek

095 18 s-hacek-labialized[04]

095 19 m

095 20 n

095 Ga

21 n-palatal

22 eng

23 eng/m

24 l[05] [07]
[l-nasalized][05]
(allo,free)
[l-flap][05]
(allo,free)

25 r-approximant[06] [07]
[r-flap][06]
(allo,free)
[r-trill][06]

26 h
[x][61]
(allo,free)

27 eng-syllabic
[m-syllabic][60]
[m-labiodental-syllabic][60]
[n-syllabic][60]
[n-palatal-syllabic][60]
[eng/m-syllabic][60]

28 l-syllabic

29 r-trill-syllabic[07]

51 i
[i-nasalized-weak][62]

52 i-nasalized

53 e

095 Ga

[e-nasalized-weak][62]

54 epsilon
[epsilon-nasalized-weak][62]

55 epsilon-nasalized

56 a-front

61 a-front-nasalized-weak[62]

62 a-front-nasalized

63 u
[u-nasalized-weak][62]

64 u-nasalized

65 o
[o-nasalized-weak][62]

66 o-open
[o-open-nasalized-weak][62]

67 o-open-nasalized

70 yod

71 w[09]

72 w-front[09]

81 high

82 mid

83 low

095 $a Ga $d Kwa $e Ghana $f 200,000 $g Merritt Ruhlen $g Jim Lorentz (review) $g John Crothers (editor)

095 $a Berry J. $b n.d. $c The Pronunciation of Ga $g Cambridge, Eng.: Heffer $q informants

095 $a **LONG VOWELS** $A Long vowels are analyzed here as clusters because (1) most vowel sequences occur in roots (p.7) and (2) all possible sequences of two tones occur with long vowels. (p.14) Berry indicates varying degrees of length for long vowels, but no general rule. (p.6)

095 $a **STRESS** $A Stress is not mentioned.

095 $a **SYLLABLE** $A (C)V $A Berry gives no syllable canon, but all examples show simple (C)V structure. Word final /eng/ appears to be syllabic. /l-syllabic/ and /r-trill-syllabic/ occur after several different syllable initial consonants. Long vowels and vowel clusters can be considered disyllabic.

095 $a **TONE** $A domain of tone: syllable $A Ga is a terraced level language with downdrift, and three tonemes, /high/, /low/, and /mid/ (=downstepped high), the last not occurring on word initial syllables. Most of Berry's examples of contour tones occur with long vowels, and are easily analyzed as sequences of the basic tonemes. Berry gives two examples (p.14) of contrast between tone sequences and the corresponding contour tones, but it is unclear what the difference is supposed to be. (p.12ff)

095 $a **WEAKENING AND DELETION OF CONSONANTS** $A "In quick speech there is a tendency: (i) For /h/ to be weakened and drop out... (ii) For a syllable with a liquid initial to be dropped. The

preceding syllable is compensatorily lengthened... (iii) A syllable with a nasal initial to be contracted to /eng-syllabic/ or to a nasal homorganic with the following consonant. (iv) Reduplicated syllables to be contracted." (p.16-17)

095 01 $A "There is a tendency among some Gas to articulate /t-aspirated/ as a dental, i.e. with a flat and spread tongue well forward on the alveolar touching the upper teeth. With the same speakers /d/ is somewhat retracted from this position, i.e. a normal alveolar as in English." (p.8)

095 02 $A "/k/p/ is inaspirate and the release is often more in the nature of a 'b' than a 'p.' /g/b/ has a firmer lip pressure." (p.11)

095 03 $A "/t/s-hacek/ and /d/z-hacek/...are articulated against the fore-part of the hard palate (the tip of the tongue being down).... /d/z-hacek/ has little friction." (p.8)

095 04 $A "In the case of /s-hacek-labialized/ and /t/s-hacek-labialized/ there is strong friction not only between tongue and palate but between the edge of the top teeth and the inside of the bottom lip.... /d/z-hacek-labialized/ has little friction." Differences between /t/s-hacek-labialized, d/z-hacek-labialized/ and /t.w/ and /d.w/ in the Twi language: "(i) the type of lip rounding used; (ii) the degree of palatalization: in making the Twi 'tw' the tongue is more arched and nearer the hard palate; there is also a pronounced [w-front] glide which is absent in the Ga sound." "/t/s-hacek-labialized/ and /d/z-hacek-labialized/ occur before front vowels only." (p.11-12)

095 05 $A "Most commonly /l/ is clear as in English before vowels.... In combination with certain consonants it is articulated weakly and is hard to distinguish from 'r'.... Between nasal vowels some speakers use a nasal 'l.' In quick speech this can give the impression of 'n'.... In combinations with /m, eng/m, k/p, g/b/ some speakers use a flapped 'l.' This sound is made by curling up the tip of the tongue towards the palate and flapping it down quickly, on the way the underside of the tongue touches the teeth ridge making one tap. The sides of the tongue are free and air escapes laterally." (p.9)

095 06 $A "'r' varies between speakers...between vowels - (it is) a voiced alveolar fricative similar to the English sound.... After alveolar and palatal consonants, (it is) a voiced fricative...or a rolled lingual consonant of two to three taps. The second variety is usually syllabic and bears its own tone. After /m/ (it is) occasionally a flapped 'r.'" (p.10)

095 07 $A /r-approximant/ alternates with /l/ in some words. Examples show this after /k-aspirated/. Also "a weak 'l'" alternates with /r-trill-syllabic/ after [x]. "Very few words of this type are to be found in the language." (p.10)

095 09 $A /w/ and /w-front/ contrast before /e/ and /epsilon/. Before /i/, only /w-front/ occurs, before non-front vowels only /w/. (p.7)

095 60 $A Word initial /eng-syllabic/ becomes homorganic to a following consonant. (Details unclear. On p.16 assimilation to alveolar and palatal positions is indicated, while the labial-velar is said to occur before labials and labial velars. The status of /m-syllabic/ is not clear.)

095 61 $A /h/ is realized "by some speakers" as a velar fricative before /l/. (p.10)

095 62 $A All vowels are somewhat nasalized in the environment of nasal consonants. (p.5-6)